What is claimed is:

1. An absorbent tampon comprising an absorbent structure consisting essentially of lyocell fibers, the tampon having a density of about 0.3 to about 0.5 g/cm^3 and a Syngyna Absorbency of at least about 4.4 g/g.

2. The absorbent tampon of claim 1 wherein the Syngyna Absorbency is at least about 5 g/g.

3. A fibrous structure comprising lyocell fibers capable of being formed into a random fibrous plug having a mass of 2 g, a density of 4 g/cm^3, and a diameter of 25 mm which has a GAT Absorbency (at 15 min.) of at least about 3.7 g/g.

4. The fibrous structure of claim 3 wherein the lyocell fibers are capable of being formed into a random fibrous plug having a mass of 2 g, a density of 4 g/cm^3, and a diameter of 25 mm which has a GAT Absorbency (at 15 min.) of at least about 4 g/g.

5. The fibrous structure of claim 3 which further comprises additional fibers.

6. The fibrous structure of claim 5 wherein the additional fibers comprise absorbent fibers.

7. The fibrous structure of claim 5 wherein the additional fibrous material comprises non-absorbent fibers.

8. The fibrous structure of claim 3 which further comprises additional materials.

9. The fibrous structure of claim 8 wherein the additional materials comprise materials selected from the group consisting of foam, hydrogel, superabsorbent, and combinations thereof.

10. A method for increasing the absorbency of lyocell fibers, comprising:

(a) hydrothermally treating the lyocell fibers with water at a temperature of at least about 60° C for about one to sixty minutes; and

(b) drying the treated lyocell fibers to a moisture content of less than about 20 wt-%;

wherein the treated lyocell fibers are capable of being formed into a random fibrous plug having a mass of 2 g, a density of 4 g/cm^3, and a diameter of 25 mm which has a GAT Absorbency (at 15 min.) of at least about 3.7 g/g.

11. The method of claim 10 wherein the water has a temperature of about 80° C to about 100° C.

12. The method of claim 10 wherein the water comprises ionic material and the fibers are treated at a temperature of about 90° C to about 110° C.

13. The method of claim 10 wherein the fibers are treated with boiling water.